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ABSTRACT

The first-year results of a Tennessee partnership to support a data-based school improvement effort, the Positive Attitudes in Tennessee Schools Project (PATS), are summarized in this report. The partnership consists of school-site leadership teams, state department of education personnel, and university faculty. Methodology involved two administrations of the Tennessee School Climate Inventory to 33 out of the 44 participating schools. The instrument was administered to 1,069 teachers, administrators, and professional staff in 19 elementary schools, 5 junior high schools, and 9 senior high schools in the fall of 1989. In spring 1990, the test was administered to 978 individuals, 477 in elementary, 126 in junior high, and 375 in senior high schools. A second survey instrument, the Tennessee Classroom Climate Inventory, was administered to 4th, 7th, and 10th graders, and the Self Concept as Learner Revised instrument was administered to 5th, 8th, and 11th graders, a total sample of over 8,000 students. Finally, project evaluations consisted of interviews with students, teachers, and administrators from 25 sites and questionnaires completed by administrators and teachers. Interview data suggest little faculty and staff involvement in project planning and implementation. Findings indicate increased participant commitment but identify problems in implementation, data collection, and creation of an information system. Selected schools at all three levels reported substantial positive changes, suggesting that school context variables, especially leadership, contribute to variations among individual schools in implementing school climate improvement efforts. Six statistical tables are included. (LMI)

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The PATS Project and Data-Based School Improvement: A Progress Report of the 1989-90 Pilot Year

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I. INTRODUCTION

State-level leadership in Tennessee today recognizes that education is truly everybody's business. It is a business that requires partnerships--partnerships between government and people; partnerships between parents and schools; partnerships between business/industry leaders and school officials; and partnerships between universities and schools. Partnerships, it is believed, hold unusual promise for contributing to school reform because of the diversity of perspectives such collaborations provide and the resources that can be made available in addressing problems mutually identified.

Summarized in this report are the first-year results of a partnership created in 1989 in Tennessee to support a data-based school improvement effort known as the PATS Project (Positive Attitudes in Tennessee Schools). The partnership consists of school-site leadership teams, state department of education personnel, and university faculty with research and evaluation expertise, who are cooperatively planning and implementing a comprehensive school reform initiative designed for a five-year period. Specific focus in the report is an overview of the state-wide school reform initiative, the year-one design for data collection and reporting, summary results of school improvements occurring during the initial year of the project, an evaluative assessment of the project at the end of the first year, and implications the collaborative has for school reform.

II. THE PATS PROJECT AND EDUCATIONAL LEARNING ENVIRONMENT ASSESSMENTS

The PATS Project was designed to accomplish several goals over a five-year period. These goals are: to improve the quality of the school climate for teachers, staff and administrators; to improve the quality of the school climate for students; to provide renewal activities for teachers through positive professional development

activities; to motivate students to stay in school; to increase the performance level of students, particularly those "at risk"; to enable students to make rational life decisions, based on high self esteem and positive attitudes; to promote a cooperative relationship among all concerned constituents of the educational community; and to celebrate outstanding PATS programs in Tennessee (*Positive Attitudes in Tennessee: Program description*, 1989). Four-member leadership teams composed of the principal, a guidance counselor if possible, and two teachers (three if no guidance counselor is on staff) manage the project at each school site, with statewide coordination provided by state department personnel.

Two dimensions emphasized during the first year are assessing and improving school climate and enhancing self-esteem of students and teachers. Specific program dimensions emphasized in subsequent years of the five-year period are based, in part, on the results of the empirical assessments conducted during the pilot year and on school improvement plans created by school leadership teams.

Thirty seven schools were initially selected as the pilot sites to begin participation during the 1989-90 school year. Five state operated schools, four of which serve special student populations, were later approved for participation during the 1989-90 school year, and one of the original 37 schools elected not to participate, bringing the total number of pilot schools to 41. In addition to the four schools serving special populations, the schools reflect various elementary, middle/junior high, and senior high school organizational structures and they vary considerably in size of professional/support staff and student populations.

School leadership teams were trained in PATS Project academies held prior to implementing the project and also attended a second academy held during the summer of 1990. Regional workshops held in November and December each year have provided additional training. In addition to programmatic aspects of the project, training focuses on responsibilities of team members in data collection and reporting, and on the interpretation of data for use in planning school improvements.

III. DATA-BASED SCHOOL IMPROVEMENTS; YEAR ONE RESULTS

Faculty and staff completed the *Tennessee School Climate Inventory* during in-service activities prior to the opening of school in 1989. Results of these audits were mailed to the schools in November of 1989 and reviewed during workshops in December. At the end of the 1989-90 school year, the inventory was administered a second time to faculty and administrative personnel.

The *Tennessee Classroom Climate Inventory* was completed by students enrolled in grades 4, 7, and 10; 5th, 8th, and 11th grade students completed the *Self Concept as Learner Revised.* Some sampling variations occurred, however, due to school size: in small schools samples were adjusted to prevent identification of results with one class; in large schools representative samples of 150-175 students in each grade completed the inventories. Fall 1989 data summaries for the pilot sites were constructed from data obtained from more than 8,000 students.

Results reported here are based upon 1989 fall and 1990 spring administrations of the *Tennessee School Climate Inventory*. Fall 1989 school climate information was obtained from 1,069 teachers, administrators, and professional staff in 19 elementary schools (N=483), five junior high schools (N=147), and nine senior high schools (N=439). Respondents in the spring of 1990 included 978 individuals (477 elementary, 126 junior high, and 375 senior high). Project evaluation and implementation information was also obtained from these respondents.

For various reasons, five schools did not collect and report spring data. Also excluded were fall 1989 school climate data obtained in three schools serving special populations. Data from one state operated school excluded originally from the fall data set were incorporated into the revised data sets for analyzing changes between the fall and spring audits.

The pilot school sites are predominantly rural or located in small towns. Less than 10 per cent of the faculties at any level represent minority populations, and the percentage of males present

in the schools range from a low of 9% at the elementary level to a high of 41% at the high school level.

Changes Observed in School Climates in the First Year

In order to document change using individual schools as the unit of analysis, a change index was calculated for each of the 33 sites by summing the fall and spring school climate scale means by school. Based on this index, eight of the schools reported substantial school climate changes between the fall of 1989 and spring of 1990. Change indexes in these schools ranged from +10 to +31. All school levels were reflected, including four elementary, two junior high, and two high schools. An additional ten sites reported moderate changes with index scores ranging from +1 to +9. The other sites (n=14) had index scores ranging from no change to declines in school climate ratings between the fall and spring semesters (0 to -14). The results of using the individual school sites as the unit of measure, with overall change scores being the focus of the analysis, clearly reveal that the participating sites reflect wide variations of school climate improvements the first year. This finding is supported through other analyses which have been conducted.

As shown in Table 1, using the unit of analysis as school level (elementary, junior, and senior) more changes by school level were clearly evidenced in sites enrolling younger children. Differences between the fall and spring school climate scale means for the elementary sites were statistically significant for six dimensions. Only elementary school leadership ratings did not vary. At the senior high level, statistically significant changes were found for two dimensions: school-community involvement and collaborative problem solving. While school climate ratings provided by the junior high and middle school sites were positive overall, none were statistically significant.

An analysis of the fall and spring climate data treating inventory items as the criterion by school level (see Table 2) provides more specific information relative to variables found to change during the 1989-90 school year. In the elementary schools,

statistically significant changes were associated with order (#30, #44, #46), leadership (#8), school environments (#9, #14, #29, #38), involvement of the schools with their communities (#5, #11, #18, #19, #32), instructional programs (#4, #15, #24, #33, #35), student expectations (#2, #17, #43), and collaborative problem-solving (#1, #6, #26). Improved school climate ratings reported by the senior high faculties, while less than those observed for the elementary sites, were found for variables associated with six of the seven scaled dimensions. The most prominent changes in the high schools were observed in the areas of school and community involvement, instruction, expectations held for students, and collaboration. In the junior high and middle school sites, positive changes were found relative to reviewing and updating school goals, providing varied learning environments, respect existing between employees and students, parents and businesses becoming more active in the schools, improved sequencing of learning, and the use of a variety of teaching materials.

Conclusions

Changes in the empirical indicators of school climates in the pilot sites during the 1989-90 school year indicate that overall positive developments occurred in all organizational levels with more change reported by the elementary sites. PATS Project emphases during the first year of implementation apparently produced, along with the data-based school improvement planning model, some important school climate results. This suggests that learning environments in the sites generally became more positive as the year evolved. In some sites, results indicate that substantial changes were realized. Major project goals associated with enhancing the self esteem of both students and school employees, creating more positive school climates overall, recognizing and valuing diverse teaching and learning styles, developing more improved school-community relations, modifying expectations held for students, and achieving more collaborative problem solving involving all school personnel are indicated in the perceptual ratings provided by faculty and administrative personnel in the schools. Again, these changes are

reflected overall, but are most pronounced in selected school settings.

Positive school climate changes reported by elementary sites exceeded those reported in schools serving older students. Given that elementary sites were viewed as more positive in the fall of 1989, it is interesting that this level of schooling also demonstrated more changes over the course of the school year. Junior and senior high climates, based upon the fall 1989 results, in comparison with elementary schools, reflected a greater need for improvement as workplaces for teaching and learning. While they reported positive changes, the elementary schools clearly outdistanced them in the school improvements assessed here.

When the 1989-90 school climate data were investigated treating the school sites as the units of analysis, changes occurring within the individual school sites reflect a different pattern of change. Selected schools at all three levels reported substantial gains, suggesting that school level may not be the controlling factor responsible. Moreover, all organizational types were represented in the school units characterized as having less positive school climates in the spring than they did in the fall. School context factors, not programmatic emphases, appear to be responsible for the variations found in the individual school sites.

Based upon information obtained from state personnel providing technical assistance to the sites, communications with the school leadership teams, site observations and interviews conducted by higher education personnel paired with the schools, variations observed in school climate changes observed during the start-up year of the project resulted from several known factors. These include (a) timing for reporting information to the schools for maximum utilization, (b) leadership and improvement motivation in the sites, (c) limited technical expertise and support in use of statistical information in school improvement activities, (d) complexities of the data reporting and relevancy of the data to information needs and problems in the various sites, and (e) the delay experienced in making available report forms, along with the training, that facilitated data reduction, interpretation, and use. Training

academies conducted in the summer of 1990 addressed these factors and revised plans for reporting and summarizing the information for school use have been implemented in the 1990-91 school year.

Leadership in the schools is believed to be a critical factor associated with school climate improvements observed in the start-up year and is a dimension thought to be associated with numerous complexities. Some principals, as well as teachers who serve on the leadership teams, are obviously committed to improving their schools and have been successful in using the project materials and information in developing specific school improvement activities. Changes in administrative personnel occurred in some sites, resulting in principals who did not understand the program since they had not participated in the training academies and had not been present when the initial interest in becoming involved was expressed. Some principals seemed to perceive the information to be threatening, or lacked the skills necessary for interpretation and use, and therefore were hesitant to share the results with school personnel or community groups. Lack of sustained commitment to the project and limited use of the information by overworked school personnel may indeed be a major contributing factor to the lack of change observed in some sites. In summary, a host of issues relating to technical, administrative, managerial, and conceptual matters may need to be addressed and resolved if all sites are to gain maximum benefit from participating in the project. More refined explanations of why changes did or did not occur in the schools undertaking educational reform through data-based decision-making and planning is also indicated.

IV. YEAR ONE PROJECT EVALUATION AND IMPLEMENTATION: AN ASSESSMENT

A unique feature of the project involves pairing of higher education faculty-researchers with the schools to monitor developments in the sites and collect qualitative data. School site data were generated by the faculty-researchers through use of a focused interview guide which obtained faculty, administrator, and

student perceptions of project activities. Interview probes solicited information regarding *True Colors* materials and activities, site team leadership and coordination, use of learning environment assessment data, types of technical support provided by state personnel, and parent/community involvement with the project. Data generated through the site-based interviews were coded, summarized, and analyzed in preparing the summary profiles presented here regarding year-one results.

Content of the interviews from 25 sites was analyzed for emergent patterns, and data were coded and categorized. Findings from the interviews were used in interpreting results obtained from quantitative ratings of project activities and overall impact. Empirical ratings were provided by both school personnel and students.

Quantitative data relative to project evaluation and implementation were obtained from teachers and administrative personnel through questionnaire items with responses scored from (1) Little to (3) Some to (5) Great. Unknown and no change responses were coded as 0. Evaluative school improvement ratings included those associated with leadership, students, school, community, instruction, and school environment. Reliability estimates, as measured by Cronbach's alpha, revealed the internal consistency of the scales to be high - .95 for elementary, .94 for junior high, and .92 for senior high. Project implementation ratings were provided for school-based dimensions, services provided by state department and university personnel, and instructional materials through use of a 5-point scale ranging from (1) Poor to (3) Satisfactory to (5) Excellent. No change and unknown responses were coded as 0. Again reliability estimates of internal consistency were high - .95 for elementary, .96 for junior high, and .93 for senior high.

As can be seen in Table 3, the means for the different items generally ranged between 3 and 4. Only two item means exceeded 4.00 and both of these were for implementation factors at the elementary school level - leadership team coordination and school-wide awareness. Statistically significant differences for the school level item means were found for all items except three dealing with

leadership. The clearly defined pattern is that elementary sites provided the higher ratings, followed by high schools, with junior high sites providing consistently lower ratings.

An analysis of the percent of school personnel (Table 4) reporting agreement with the items (50% or higher) reveals that the two highest ratings were assigned at the elementary level for specific implementation dimensions - school-wide awareness, site coordination, use of *True Colors* materials/activities, project implementation throughout the school, year-long emphasis, and staff development. A majority of high school personnel supported five of the same factors. None of these were reported by a majority of the junior high faculties. Site interviews, however, indicate a high degree of involvement in the project and generally high school-wide awareness with all faculty and students participating in selected activities. In most schools, community awareness was also present.

The no change or unknown results suggest that several implementation dimensions were not highly visible in the sites or were perceived to have little, if any, value. As many as a third of the respondents reflected no awareness of the technical services provided by state personnel, use of the school data audits, and value of the school improvement plans. School site interviews and observations provided by school leadership teams in the training sessions confirm that many faculty were not aware of these implementation dimensions. Since the percentages are reported state-wide by level, the unknown or no value ratings may have been generated primarily in selected sites which gave less attention to the project. Site-based interviews support the finding that there was little involvement of the faculty and staff in planning and coordinating of the PATS Project in several sites.

Students in six grade levels reporting ratings of class climate and self concepts as learners in the spring 1990 audits also responded to 10 evaluative items relating to school improvements associated with the project. Student ratings were scored from 1 (little) to 5 (great). Table 5 presents students' evaluative results obtained through class climate audits (grades 4, 7, 10) and Table 6 summarizes evaluative results yielded by the self concept as learner

audits (grades 5, 8, 11).

As shown in Tables 5 and 6, student mean ratings of the evaluation items varied extensively with elementary students consistently providing the higher ratings. A third to a half of the students at all six grade levels, however, rated high the emphasis placed on positive attitudes, use of *True Colors* in their classes, improved self understanding, satisfaction with school, and the amount of attention the PATS Project should have next year. *True Colors* emphasis on understanding self and getting along with others appears to have had more impact on the younger students since the 10th and 11th grade students gave this item considerably lower ratings. Student ratings generally confirm that planned project activities the first year were present in the sites. Moreover, the project goals were to some extent realized as evidenced by student ratings. Site interviews confirmed that the project had resulted in increased positive attitudes of both students and school personnel.

IV. IMPLICATIONS OF A UNIVERSITY AND SCHOOL RESEARCH COLLABORATIVE FOR DATA-BASED PROGRAM IMPROVEMENT

The PATS Project collaborative is a little over a year old and can be defined as an "infant". However, participation in the collaboration has provided opportunities to become more aware of the opportunities and successes such arrangements can yield along with, of course, a better understanding of many issues and problems that must be resolved if later phases of the collaboration are to be successful. Our experiences generally support the findings reported by others, such as Oakes (1985) who defined collaborative inquiry as "a congenial paradigm in a cantankerous world" and Ward and Tikunoff (1982) who analyzed the characteristics and contribution collaborative research has for educational practice. For our purpose here, a set of tentative generalizations and observations will be offered based upon the first year of a five-year project.

In general, commitment to the collaborative is evident though

some school leadership teams have had difficulty in implementing all dimensions of the project, including data collection. Preliminary results suggest that the university and school-based research model being implemented has achieved important results, including educational policy and practice relevancy of the research undertaken; use of research outcomes in school improvement and reform; facilitated university-based inquiry with practitioners assisting in data collection, interpretation, and use; enhanced opportunities for university personnel to establish collegial relationships with practitioners in communities typically not served by the universities; and reduction of time lapse typically associated with applications of findings generated by university research.

Problems associated with the ethical and legal aspects of data collection, treatment, and reporting were anticipated and safeguards utilized to this point have prevented developments that often bring about the destruction or major revamping of collaborative endeavors. Determining the proper way of reporting the information generated by the research, and involving practitioners in interpretation and use, required a major developmental effort on behalf of the university personnel involved. Coping with the limited technical expertise of many practitioners, along with a frequently expressed anxiety associated with massive data sets, became a real challenge that had to be addressed. Involving university faculty in planning and conducting training for the practitioners has helped ease this problem. Providing the educative function by university personnel requires additional support and, in this collaborative, was not fully anticipated initially.

Creating an information system which provided data relevant to the needs of schools experiencing a host of problems stemming from varieties of communities served, student characteristics, differences in personnel and support, and financial conditions became a major challenge faced by university personnel. In general, relevancy of the information provided to the pilot sites during the initial year of the project has been demonstrated

though some sites appeared to make little use of the data in framing and implementing action improvement plans. It is not clear whether enhanced relevancy might have resulted in more use of the information. Factors relating to school leadership, administrative priorities, work loads, and a host of other contextual dimensions may provide better explanations of limited use of the data than does relevancy.

The collaborative research process, as it has unfolded in this project, has resulted in new understandings by both university and state personnel, as well as school practitioners. These understandings include new insights gained relative to: roles and responsibilities of all parties involved and how these might be better defined in the future; different expectations existing in the school sites that must be recognized and incorporated into the planning; lack of commitment reflected by some participants to the overall project and especially to data-based school improvement; practitioner understandings of the importance of proper data collection in the sites; quality control components that must accompany all phases of data collection, treatment, and reporting; and need to create a communications system that clearly delineates timelines, expectations, and consequences of failure to comply.

As Oakes (1985) reported, a collaboration focusing on field-based research does occur in a "world that is cantankerous", yet the approach holds real promise for congeniality. Moreover, issues relative to the research and evaluation plan, developmental features, and implementation dimensions have been found to remain constant when a collaborative such as this is undertaken and maintained. However, new understandings of the conditions and requirements for successful collaboratives can be a rewarding outcome along with the recognition that university-based inquiry can be designed to have maximum relevancy to the needs of practitioners in the schools.

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Table 1

Percent Agreement Differences for School Climate Items, Fall 89-Spring 90[a]

No.	Items by Scale		Elem.[1] F	Elem.[1] S	Elem.[1] %[b]	Jr. High[2] F	Jr. High[2] S	Jr. High[2] %	Sr. High[3] F	Sr. High[3] S	Sr. High[3] %
	SCALE 1: ORDER										
13	Rules for student behavior are consistently enforced.	P	57	60	3	46	50	4	57	57	0
23	Student discipline is administered fairly and appropriately.	P	61	62	1	49	56	7	62	61	-1
25	Student misbehavior interferes with teaching.	N	40	42	2	52	48	-4	31	35	4
30	Student tardiness and absence is a problem.	N	27	20	-7	33	29	-4	49	44	-5
39	The school is a safe and secure place in which to work.	P	82	84	2	65	61	-4	81	80	-1
44	Joint responsibilities for student discipline exists.	P	43	49	6	29	37	8	40	45	5
46	Student behavior is generally positive in this school.	P	55	62	7	47	53	6	59	65	6
	SCALE 2: LEADERSHIP										
8	The administration communicates that all students can learn.	P	76	81	5	55	66	11	72	75	3
20	The administration encourages teachers to be creative.	P	74	78	4	54	56	2	66	68	2
34	The principal provides feedback on staff performance.	P	63	71	8	52	56	4	65	70	5
36	The administration does not protect instructional time.	N	27	28	1	14	25	11	20	25	5
42	The principal provides strong instructional leadership.	P	62	67	5	47	56	9	68	69	1
45	School goals are reviewed and updated.	P	53	61	8	37	58	21	57	64	7
47	The principal is highly visible throughout the school.	P	76	75	-1	57	50	-7	67	63	-4
	SCALE 3: ENVIRONMENT										
7	Faculty and staff feel they are important.	P	73	74	1	55	49	-6	72	66	-6
9	Varied learning environments are provided.	P	54	63	9	38	48	10	52	63	11
10	The school building is neat, bright, clean, and comfortable.	P	72	69	-3	50	43	-7	56	52	-4
14	Employees and students show respect for each other.	P	52	62	10	38	49	11	46	55	9
29	An atmosphere of trust exists.	P	48	57	9	32	42	10	41	42	1
38	Teachers reflect pride in this school and its students.	P	70	77	7	53	63	10	65	68	3
49	People in this school really care about each other.	P	67	69	2	51	48	-3	54	57	3
	SCALE 4: INVOLVEMENT										
5	Community businesses are active in the school.	P	38	50	12	11	23	12	32	42	10
11	Parents are involved in a home-school support network.	P	33	39	6	14	17	3	24	25	1
12	Parents are treated courteously.	P	86	85	-1	67	74	7	83	80	-3
18	Parents are invited to serve on school advisory committees.	P	49	61	12	23	33	10	41	47	6
19	Parent volunteers are used wherever possible.	P	60	70	10	25	28	3	31	34	3
32	A school newsletter or bulletin communicates information.	P	58	71	13	35	29	-6	41	37	-4
37	Parents are invited to visit classrooms.	P	49	51	2	35	41	6	35	41	6

[1]Fall (N=483) Spring (N=477); [2] Fall (N=147) Spring (N=126); [3]Fall (N=439) Spring (N=375)

[a]Underlined data reflect statistically significant differences ($p<.05$) between the Fall 89 and Spring 90 item means. [b]Percent differences between Fall 89 and Spring 90

Table 1(continued)

Percent Agreement Differences for School Climate Items, Fall 89-Spring 90[a]

No.	Items by Scale		Elem.[1] F	Elem.[1] S	Elem.[1] %[b]	Jr. High[2] F	Jr. High[2] S	Jr. High[2] %	Sr. High[3] F	Sr. High[3] S	Sr. High[3] %
	SCALE 5: INSTRUCTION										
4	Teachers use a variety of teaching strategies or models.	P	76	82	6	64	68	4	77	75	-2
15	Teachers sequence learning so students experience success.	P	67	76	9	43	59	16	54	63	9
24	Students have opportunities to develop higher-order skills.	P	58	71	13	54	68	14	62	71	9
33	Curriculum guides insure coverage of subject content.	P	73	81	8	56	71	15	64	60	-4
35	Appropriate evaluation methods are used to assess learning.	P	76	85	9	70	73	3	71	73	2
41	Pull out programs interfere with basic skills instruction.	N	26	27	1	17	24	7	30	26	-4
48	Teachers use a wide range of teaching materials.	P	74	81	7	59	68	9	69	67	-2
	SCALE 6: EXPECTATIONS										
2	Low achieving students are given opportunity to succeed.	P	67	74	7	53	60	7	62	72	10
3	School rules/expectations are clearly communicated.	P	70	71	1	61	64	3	75	69	-6
17	Students share responsibility for the school environment.	P	52	58	6	53	41	-12	29	34	5
21	Students are held responsible for their actions.	P	63	68	5	68	67	-1	67	65	-2
22	Many students are not expected to master basic skills.	N	21	19	-2	25	21	-4	19	24	5
27	Many students do not participate in school activities.	N	12	12	0	18	20	2	17	12	-5
43	Teachers hold high expectations for students.	P	57	72	15	44	51	7	52	65	13
	SCALE 7: COLLABORATION										
1	The faculty/staff share commitment to the school's goals.	P	73	79	6	59	64	5	73	79	6
6	Students are encouraged to help others with problems.	P	42	58	16	33	37	4	37	51	14
16	Teacher communication is encouraged.	P	65	71	6	50	53	3	60	62	2
26	Students participate in solving the school problems.	P	25	36	11	19	26	7	37	48	11
28	Cooperation exists among the faculty and staff.	P	63	68	5	50	52	2	60	55	-5
31	Teachers need to participate more in school decision-making.	N	45	44	-1	50	49	-1	46	42	-4
40	Most problems can be solved without outside help.	P	71	73	2	61	62	1	61	65	4

[1]Fall (N=483) Spring (N=477); [2] Fall (N=147) Spring (N=126); [3]Fall (N=439) Spring (N=375)

[a]Underlined data reflect statistically significant differences ($p<.05$) between the Fall 89 and Spring 90 item means. [b]Percent differences between Fall 89 and Spring 90

Table 2

Fall 89 and Spring 90 School Climate Scale Means by Level

	ELEM.[1]	ELEM.[4]		JR.[2]	JR.[5]		SR.[3]	SR.[6]	
	F	S	p<	F	S	p<	F	S	p<
SCALE									
ORDER	24.19	25.13	.05	22.41	22.87		23.95	23.75	
LEADERSHIP	26.71	27.32		24.54	24.82		26.32	26.30	
ENVIRONMENT	26.35	27.18	.05	23.14	23.83		24.77	25.17	
INVOLVEMENT	24.81	26.16	.0001	19.86	20.51		21.88	22.74	.05
INSTRUCTION	26.35	27.48	.0001	24.63	25.61		25.62	25.77	
EXPECTATION	26.13	27.16	.005	24.41	25.27		25.22	25.51	
COLLABORATION	24.38	25.60	.001	22.37	23.09		23.78	24.73	.001

[1]Fall (N=483); [2]Fall (N=147); [3]Fall (N=439)
[4]Spring (N=477); [5]Spring (N=126); [6]Spring (N=375)

Table 3
Faculty and Staff Evaluation of School Improvement Dimensions, PATS Project, 1989-90

	Pct Great (4-5)				None (0)			X			p<	Sign Diff
	Sub	El	Jr	Sr	El	Jr	Sr	El	Jr	Sr		
LEADERSHIP												
1 Faculty participation in decision making	1	41	28	42	6	11	6	3.40	3.09	3.30	0.010	1-2
2 Leadership provided by the administration	1	57	47	62	5	12	6	3.70	3.52	3.75		
3 School-wide, gr. level and/or dept. goal setting	1	47	44	48	9	14	9	3.57	3.41	3.44		
4 Cooperation between administration, faculty and staff	1	57	49	60	6	9	6	3.72	3.56	3.69		
5 Involvement of support staff in school improvement	1	50	36	46	7	11	7	3.57	3.22	3.38	0.010	1-2
STUDENT												
6 Student attitudes toward school	2	42	28	39	8	9	5	3.34	2.99	3.16	0.001	1-2
7 Student involvement in decision making	2	24	15	38	11	11	5	2.86	2.58	3.17	0.001	1-2,1-3,2-3
8 Student attendance	2	43	30	30	12	11	8	3.36	2.90	2.91	0.001	1-2,1-3
9 Student behavior	2	36	29	35	10	9	7	3.09	2.79	3.10	0.050	1-2,2-3
SCHOOL/COMMUNITY												
10 Parent perceptions of the school and its programs	3	40	28	32	9	15	7	3.31	2.89	3.00	0.001	1-2,1-3
11 Parent/community involvement in the school	3	37	18	26	8	13	9	3.25	2.64	2.92	0.001	1-2,1-3,2-3
12 Communication with parents/community groups	3	45	24	33	8	12	8	3.39	2.83	3.08	0.001	1-2,1-3
INSTRUCTION												
13 Provisions for the diversity of teaching/learning styles	4	47	32	47	9	11	6	3.55	3.18	3.43	0.001	1-2
14 Curriculum coordination between gr. levels & courses	4	46	32	38	12	13	9	3.49	3.17	3.22	0.001	1-2,1-3
15 Expectations for student achievement	4	54	44	45	10	9	7	3.72	3.43	3.36	0.001	1-2,1-3
SCHOOL ENVIRONMENT												
16 General faculty and staff morale	5	53	37	53	6	9	6	3.54	3.15	3.46	0.005	1-2,2-3
17 Overall climate for teaching and learning	5	54	38	53	7	9	6	3.64	3.19	3.46	0.001	1-2
18 Physical environment of the school	5	46	30	41	10	12	9	3.45	2.92	3.14	0.001	1-2,1-3
19 Management of the school, its programs and services	5	48	34	50	11	11	7	3.53	3.20	3.44	0.010	1-2
20 Social/emotional support provided for students and staff	5	48	31	44	8	15	5	3.49	3.13	3.30	0.001	1-2

Table 4
Faculty and Staff Evaluation of PATS Project Implementation, 1989-90

	Pct Exc (4-5)			Pct None (0)			X			p<	Sign Diff
	El	Jr	Sr	El	Jr	Sr	El	Jr	Sr		
1 Coordination provided by the PATS leadership team	65	42	51	9	14	14	4.06	3.51	3.73	0.001	1-2,1-3
2 PATS school-based staff development activities	60	36	51	10	15	12	3.94	3.36	3.65	0.001	1-2,1-3,2-3
3 PATS Project implementation throughout the school	61	44	51	9	10	12	3.98	3.46	3.64	0.001	1-2,1-3
4 School-wide awareness of the PATS Project	69	55	59	8	11	9	4.18	3.77	3.78	0.001	1-2,1-3
5 Continued emphasis on the Project throughout the year	55	36	37	8	11	8	3.75	3.17	3.20	0.001	1-2,1-3
6 Community awareness of the PATS Project	46	31	30	12	12	14	3.55	3.05	3.04	0.001	1-2,1-3
7 Technical support/services provided by State Department	36	24	22	25	29	27	3.46	3.01	2.96	0.001	1-2,1-3
8 Data and reports provided by MSU Center of Excellence	34	24	23	31	38	36	3.52	3.20	3.05	0.001	1-3
9 Use of research data in planning school improvements	33	19	25	32	39	34	3.47	3.06	3.09	0.001	1-2,1-3
10 Value of the school improvement Action Plan	36	24	32	29	34	28	3.59	3.24	3.25	0.001	1-2,1-3
11 Use of True Colors instructional materials/activities	62	42	52	10	15	10	3.97	3.56	3.64	0.001	1-2,1-3

Table 5
Student Evaluation of School Improvements, PATS Project, 1989-90

	Pct Great (4-5)			X			p<	Sign Diff
Grade	4	7	10	4	7	10		
1 How much has the PATS Project helped to improve your school?	33	16	12	3.29	2.67	2.51	0.001	1-2,1-3,2-3
2 How much emphasis has been placed on positive attitudes in your school?	40	35	40	3.45	3.13	3.21	0.001	1-2,1-3
3 How much better do students feel about school because of PATS?	38	20	15	3.27	2.60	2.48	0.001	1-2,1-3,2-3
4 How much has student behavior improved because of participation in PATS?	31	17	13	3.04	2.50	2.40	0.001	1-2,1-3
5 How much was True Colors used in your class(es)?	48	42	37	3.56	3.21	3.08	0.001	1-2,1-3
6 How much have you enjoyed learning about True Colors?	63	48	48	3.97	3.44	3.35	0.001	1-2,1-3
7 How much has True Colors helped you understand and get along with others?	48	36	19	3.58	3.08	2.83	0.001	1-2,1-3,2-3
8 How much has True Colors helped you understand yourself?	55	40	38	3.76	3.23	3.11	0.001	1-2,1-3
9 How satisfied are you with school this year?	56	43	44	3.76	3.30	3.24	0.001	1-2,1-3
10 How much attention should PATS have in your school next year?	58	43	42	3.94	3.36	3.34	0.001	1-2,1-3

Table 6
Student Evaluation of School Improvements, PATS Project, 1989-90

	Pct Great (4-5)			X			p<	Sign Diff
Grade	5	8	11	5	8	11		
1 How much has the PATS Project helped to improve your school?	25	15	13	2.98	2.62	2.55	0.001	1-2,1-3
2 How much emphasis has been placed on positive attitudes?	34	34	42	3.22	3.10	3.31	0.005	2-3
3 How much better do students feel about school because of PATS?	26	16	13	2.90	2.59	2.50	0.001	1-2,1-3
4 How much has student behavior improved because of PATS?	23	14	14	2.73	2.39	2.45	0.001	1-2,1-3
5 How much was True Colors used in your class(es)?	43	41	37	3.42	3.32	3.06	0.001	1-3,2-3
6 How much have you enjoyed learning about True Colors?	52	45	45	3.66	3.38	3.25	0.001	1-2,1-3
7 How much has True Colors helped you get along with others?	40	32	30	3.28	2.99	2.81	0.001	1-2,1-3,2-3
8 How much has True Colors helped you understand yourself?	46	40	33	3.49	3.17	2.94	0.001	1-2,1-3,2-3
9 How satisfied are you with school this year?	48	43	42	3.47	3.27	3.16	0.001	1-2,1-3
10How much attention should PATS have next year?	51	42	42	3.73	3.39	3.25	0.001	1-2,1-3